[285] The diver holds onto another line to which is tied an open-weave palm leaf basket for 228 the oysters; sometimes the diver has the oyster basket tied to his waist or around his neck and has the line tied to his body. When the diver is ready to come up, he gives several tugs on the rope. Thus the diver does not have to waste his valuable energy in swimming up or down. When he first reaches the bottom, he attempts to go out perpendicularly from the boat, frantically plucking all the oysters he can see before his air gives out. The diver usually crawls on one hand and one foot, using the other foot to propel himself and his free hand to collect the oysters.

228 The divers wear a horn noseclip similar to a clothespin; this 292 keeps the water out of their noses and enables them to hold their breath longer. Sometimes a diver will stuff cotton or beeswax into his ears to keep the water out. A set of leather finger thimbles protects his fingers from coral and other sharp objects; he wears only a loin cloth. This is the equipment universally used in the Persian Gulf, whether the diver is out of Kuwait, Bahrein, the Trucial Coast, or Persia. These divers wear no goggles and many [164] have impaired vision from trachoma, so their efficiency is cut down considerably. It is strange that the Arabs have not added at least eye socket goggles, which the South Sea Island and Philippine pearl divers have eagerly accepted.

228 Alan Villiers states that the Kuwait pearl divers make ten 461 consecutive dives and then rest while a "substitute" makes ten; these two divers have the same attendant.[34] Divers in other parts of the Gulf work continuously, taking a rest all together at certain predetermined times, sometimes corresponding with prayer-time.

The diver stays under about a minute, then rests for two or three.[35] Ten dives would consume about three-quarters of an

[34] A. Villiers, *op. cit.*, p. 392.

[35] The average length of time that a diver stays under water has long been a controversial question. Alan Villiers (*op. cit.*, p. 392), who spent two months with the Kuwait pearling fleet, states that the divers averaged about a minute, ranging from 40 to 90 seconds. O'Shea (*op. cit.*, p. 137), spending some time among the Trucial coast pearlers, states that divers there remain under water from 40 to 75 seconds, also averaging about one minute. Whitelock (*op. cit.*, p. 43), who visited the Trucial coast pearl fisheries one hundred years ago, stated that the divers averaged about 40 seconds under water, but that he never saw them remain over a minute. Hugh Smith (*op. cit.*, p. 183) states that in the Ceylon fisheries the Arabs are the best divers, staying down from 60 to 75 seconds, with a normal maximum of 90 seconds, and that there is an authentic case of an Arab staying under 109 seconds in seven fathoms of water. In any

1: Bowen C-4 (1945-1947) 1951 MK2 Maritime Arabs MK2

hour, after which time the Kuwait diver is dragged out of the water and huddles in some spot on the ship looking more dead than alive. He may average four shifts a day, making a total of 40 dives; O'Shea states that under excellent conditions the Trucial divers average 50 dives a day.[28] During this time he has spent almost one hour under water. Ten dives are not difficult, nor are 50 excessive in one day for anyone experienced; but day after day and week after week the diving goes on — for four months. When the season is over, the diver has weathered the impossible; he has probably completed over 3,000 dives in from 30 to 50 feet of water, and has spent over 50 hours under the surface of the Persian Gulf — that is, over a full forty-hour week without air, valiantly striving to gather all the oysters he can see through his blood-shot and irritated eyes, which become less sensitive with each dive.

Every ten days or so the divers do get a day of rest, and if the *shamal* is blowing they have to wait it out, as it roils the water. Occasionally they have to go ashore to bury a diver who fails to complete his 3,000 dives. It is not surprising that there are one or two empty stations on each boat; their occupants lie huddled corpse-like under their cloaks in some part of the ship, too sick from scurvy or plain fatigue to dive. After they have been at it for many weeks, the divers are apt to get convulsive shivers when they come out of the water for their rest, even though the temperature may be 110° F. and their tenders are covered with a lather of sweat. There are few, if any, white men who could endure just one day of such punishment; the Arab could not either except for his belief that Allah is merciful and that a Paradise awaits him.

Every dhow has to put in for water and food every three weeks or so. In recent years the pearling fleet has used the oil company's pier at Ras Tanura for water, but vessels have been known to replenish their water supply from some of the submarine springs which gush into the Persian Gulf. A diver goes down with an empty skin and opens it in the potable stream; he can bring up fairly fresh water by this means. One of these submarine springs,

case stories one hears about the amazing power of the Arabs to stay under water from 5 to 10 minutes or more are absurd.

[28] R. O'Shea, *op. cit.*, p. 137.

[illegible] (1945-1967) 155. MK2 Maritime Arabs MK2

their graves, and justly, too, for diving probably hastened their end. The Government demands that account books be given each diver and that they be kept up properly, and sends inspectors to see that they are. Before the season begins at Bahrein the amount of cash advances is agreed upon and proclaimed. The divers have put up a terrific objection to this limitation, for it seemed to them that they were simply getting less money. They could not understand that their debt was being lowered—in fact they did not care, for hadn't they always been in debt?

There is a "diving court" which enforces the arbitrary laws of the industry, such as those dealing with engagement of labor, taxes, spurious pearls, etc. The court also disposes of any case of a *nakhoda* who cannot pay off his debts; the *nakhoda* may lose his boat and divers, but not his personal property.

There has never been any noticeable effort on the part of the ruling sheikhs to better the lot of their subjects: if they were unemployed for long periods in the winter they would be sure to work harder during the pearling season to pay off their winter's debts. As the local sheikhs levy a tax on every boat and get a cut of some sort on the proceeds, the pearlers in a sense work for them. The sheikh thus always looked on the lack of other employment with favor, for if a man were happily employed as a farmer, fisherman, or herder there would be little incentive to enter the pearling purgatory. Under normal conditions the divers have an eight months' loaf during which time they live off their *nakhoda;* this is to the liking of both the diver and the *nakhoda.*

However, many divers do find other work, as fishermen or mariners. The depression of the thirties hit the Persian Gulf pearl industry with great suddenness. Within a short period tens of thousands of pearlers in the Gulf found themselves without an occupation. The marine stock of Kuwait rose to the situation and gradually shifted to cargo hauling between Kuwait and Basra, Iran, India, South Arabia, and East Africa. Large ocean-going double-ended dhows have carried the fame of Kuwait seamanship throughout the Middle East, sailing to Africa on one monsoon and back on another. Kuwait oil operations have been drawing on this labor supply as well, so that nowadays the

3: Bowen C-4 (1945-1947) 1951 MK2 Maritime Arabs MK2

228 his great toe completely severed by a large piece of faroush that had slipped and hit his foot as he stood on the sea bottom.

Hasa, known to Americans familiar with native construction in Arabia as "sea rock," is found on the sea bottom in more or less solid deposits, from which a diver pries pieces (Fig. 15). Faroush is much more difficult to mine: it takes at least a day to get a boatload, whereas a crew may get three

FIG. 14—Author standing by slabs of *faroush* on the shore of Bahrein Island. Faroush is mined near Bahrein in much larger pieces than in Arabian waters. Pile of *hasa* in right background.

or four boatloads of hasa a day. Faroush is sold by the square measure, hasa by the cubic measure.

228 The rock divers, like the pearl divers, work only in the warmer months. 464 Since they generally work in water that is shallower than the pearl waters and therefore remains warm longer, the mining season is two or three months 461 longer than the pearling season, which is only four months. The rock divers do not work constantly, hour after hour, day in and day out, as the pearl [339 divers do, since each boatload has to be sailed to shore. A small stock pile 317] of faroush and hasa is always maintained in every seaboard town, and most of its buildings are constructed from these two rocks. Lime is made by burning hasa.

426 The crews mining coral rock work on the "debt system," notoriously 463 exploited in the Persian Gulf pearling industry. Although they are paid good

3: Bowen · C-4 (1945-1947) 1951 MK2 Maritime Arabs MK2

Each diver has two lines, one attached to a stone or iron diving weight; so that they will not become fouled, they are passed over sweeps left projecting over the gunwales athwartship and lashed down to the tholepins. The diver puts his feet into a loop over the diving weight (or simply lets the rope pass between his toes), releases the rope by untying a slipknot, and, holding the rope tightly, plummets to the bottom. As soon as he releases the line with the weight attached, the attendant hauls it to the surface. In the meantime the diver frantically plucks all the oysters he can before exhausting his air. He usually crawls on one hand and one foot, propelling himself with his free foot and collecting the oysters with his free hand. He puts the oysters into an open-weave palm-leaf basket fastened to his waist or around his neck, or hitched to a rope (which he holds or which is tied to his body). When he is ready to come to the surface, he jerks this rope.

The maximum depth at which the divers work is about 12 fathoms (72 feet). The average length of time they remain under water has been greatly exaggerated: some stories say 5 to 10 minutes. Villiers,[4] who spent two months on a buyer's *jalbut* with the Kuweit fleet, states that the divers stayed under water from 40 to 90 seconds, averaging about a minute. O'Shea[5] spent some time with the divers of the Trucial Coast, and he also states that the time averaged about a minute, ranging from 40 to 75 seconds. Hugh Smith[6] observes that the Arabs are the best divers employed in the Ceylon fisheries, staying down from 60 to 90 seconds; he cites an authentic case of an Arab who stayed down 109 seconds in 7 fathoms of water.

Ordinarily the diver remains under water for about a minute and rests for two or three minutes; on a good day he may make 30 or 40 dives, totaling half to three-quarters of an hour, and by the end of the season he may have completed more than 3000 dives in 30 to 50 feet of water.

The diver's worst enemy is fatigue. He has little fear of sharks and, indeed, is seldom bothered by them, though O'Shea[7] speaks of an attack on 30 divers, two of whom were killed under water. Whitelock[8] states that the greatest fear of divers on the Trucial Coast is the sawfish, which has been known to cut divers in two. The creature most feared by the divers in the Persian Gulf, at least on the north banks between Kuweit and Bahrein, is a jellyfish known to the Arabs as the *dawl*, which has two- to three-foot

[4] Alan Villiers: Sons of Sinbad, New York, 1940, p. 392.

[5] Raymond O'Shea: The Sand Kings of Oman, London, 1947, p. 137.

[6] H. M. Smith: The Pearl Fisheries of Ceylon, *Natl. Geogr. Mag.*, Vol. 23, 1912, pp. 173–194; reference on p. 182.

[7] *Op. cit.*, p. 138.

[8] H. H. Whitelock: An Account of the Arabs of the Pirate Coast, *Trans. Bombay Geogr. Soc.*, Vol. 1, 1844, pp. 32–49; reference on p. 43.

136 stinging tentacles that can easily put out an eye. There is also a needle urchin (*Diadema*), first reported from the Persian Gulf in 1949.[9] This urchin has spines more than a foot long, which can cause nasty, slow-healing wounds. However, as the urchin is several feet in diameter, black, and slow-moving, it is more easily avoided than the dawl.

164 752 Pearl divers suffer from a variety of diseases, most of which can be directly traced to their occupation. Open sores and skin ulcers result from encounters with the dawl and scrapes against coral and other sharp objects. Suppuration of the eardrums, rheumatism, and nosebleeds are common. Inflamed eyes are always a sign of the pearl diver. Persian Gulf divers are more susceptible to the "bends" than divers who use suits, since they must surface as rapidly as possible.

262 461 Divers never eat while they are working. When the day's diving is finished, the diver has some rice, dates, and tea, but not much else; sleep is his only energy builder. Every 10 days or so the divers get a rest, and every three weeks or so the dhows put in for food and water unless they have been revictualed at sea.

228 312 502 438 In recent years Ras Tanura has become a center of activity for the pearling fleet off its shores; for the oil company's installations can now pump an abundance of fresh water into the water tanks of the dhows much faster than it can be transferred by waterskins. The larger vessels anchor for the night on the banks; the smaller vessels sometimes take shelter if it is available. Some vessels of the pearling fleet replenish their water supply from the submarine springs that gush into the Persian Gulf in numerous places along the Arabian littoral. Relatively fresh water can be brought up in a waterskin by a diver. One of these springs, marked by a spar buoy, is to be found a few miles north of Jubail.

228 The first duty of the day on a pearling dhow is opening the previous day's oysters, which are heaped on deck in a large pile so that no one knows who found the oyster which may produce the rare gem. The muscles of the oysters relax enough overnight so that it is not difficult to open them. Less than a third of the oysters yield pearls, and these are usually only very small seed pearls.

228 442 439 Pearls are sometimes bought on the pearl banks by brokers who travel around in their own boats trying to get the best pearls before other brokers hear of them, and trying to get a valuable pearl before a nakhoda realizes its value. But whether the pearls are sold on the banks or at Bahrein, they

all end up in Bombay

113 [9] A. H. Clark and R. LeB. Bowen, Jr., Echinoderms of Tarut Bay and Vicinity, Saudi Arabia, *Amer. Museum Novitates*, No. 1390, 1949.

5: Harrison D-4 (1912-1924) 1924 M1 Middle East
Maritime Arabs MK2

plement of long heavy oars, so that they can be independent of the wind when necessary. One of these great diving boats moving out to sea is a sight long to be remembered. I once watched one of the largest Dibai boats leave for the pearl banks. During the winter these boats are hauled up on the sand within a lagoon that runs through the city. The great boat moved majestically down this lagoon and out to sea. There were fifteen to twenty enormous oars on each side and each oar was manned by two divers. The oarsmen swung down the lagoon with a stateliness that I have never seen surpassed, the men chanting as they worked, *"A billah mal, a billah mal,"* in a rhythm that had all the swing of a regiment off to war or a football team on its way to a game. There was a splendid silk flag flying at the stern, and the great ship went out to sea with every small boy in Dibai wishing he was on board. I felt the thrill of it myself, and the Baluch boy that I had with me as a medical assistant had hard work to keep both his feet on the ground. "Oh *Sahib,*" he said, "it makes me want to go with them."

However, once the pearl banks are reached, the work is hard and dangerous. The long oars are fastened in place so that they stretch out horizontally over the water and to each oar a rope is tied which carries a lead weight or a stone on its end. The diver stands on this weight as he descends, in order to get down quickly. Each diver has an assistant whose duty it is to haul up the weight as soon as the diver reaches the bottom, so that it may be ready for the next descent. There is a second rope which is fastened around the diver's waist. By this his assistant pulls him up when he gives the signal. This assistance is not necessary if the diving is in shallow

5: Harrison D-4 (1912-1924) 1924 M1 Middle East
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721 Political troubles became acute some ten years ago or more, and for many years no foreigner was allowed to land on that coast. It was a double pleasure, then, to be invited to visit that part of Arabia four years ago. It
567 is the one remaining nest of slavery in eastern Arabia and the district is still troublesome at times to the bearers of constituted authority, but nothing of that sort is ap-
576 parent to the visiting doctor. The rich and the poor alike are most courteous and pleasant hosts.

228 In this district* the pearl-diving system is the same as
461 in Bahrein, but the men do not work nearly so hard. They set out to work later in the season, although if the temperature of the water were the only element in their decision, they might be at work sooner, for they lie farther to the south and their water warms up considerably before that near Bahrein. They return to the shore oftener and show much less energy in their work. The pearl banks in the region of the Pirate Coast are less rich than the Bahrein banks, and as might be expected, their catch is much less valuable than that of the boats farther
511 north. It is interesting to see that divers on the Pirate Coast live at about the same general level as those in Bahrein. They could not live at a much lower level, for it would mean starvation. The larger receipts in the Bahrein area have as their only result the creation of a much richer class of pearl merchants than the similar class on the Pirate Coast.

567 Unquestionably it is the slaves who have reduced the
464 standards of what a day's and a season's work ought to
461 be to its present level on the Pirate Coast. Most of these slaves are negroes from Africa. A few are Baluchs from the Makran coast between India and Persia. They do not number over one-half the divers, probably far

*[The Pirate Coast and its capital at Dibai --Analyst]

5: Harrison D-4 (1912-1924) 1924 M1 Middle East
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Bahrain MZ2

less than that, but their attitude of listlessness and indifference has tended to pull all the rest down to their level. Just why slavery never took root in Bahrein, why the Arabs there never bought slaves to do their diving, is difficult to see. It seems such an easy way to get rich. One reason why Bahrein is a much stronger community financially now than its southern competitor is the fact that slaves have never been brought in to any large extent.

It is a great temptation, this opportunity to have one's work done by slaves, and nothing could seem to offer greater profits. The slaves have no rights. They can be punished if they show less diligence than their owner thinks adequate. They receive no wages at all, only such food and clothing as their master sees fit to give them. Arabs are not the only people that have been deceived by this fallacy. We believed it ourselves a hundred years ago. It has been a disastrous policy from every standpoint. Nothing could exceed the indifference and laziness of the average slave under such conditions. The money spent on food and clothing for these slaves brings a smaller return in service rendered than any wages paid in Arabia. Of that much any one is sure who has watched them work, or rather has watched their very successful efforts to avoid doing any work. Prostitution is commoner on that coast than in any other eastern Arabian community. Slave women are the toys of any man who buys them, and what the Pirate Coast sowed in its treatment of helpless women slaves, it is reaping in an atmosphere of degradation that envelops the entire community from the lowest to the highest.

As passive resisters these slaves are superb. I have seen one of them, disgruntled by some mistreatment or insult, simply lie down on the job and no expostulation